

- 72 -

CLAIMS

1. A CAB molecule comprising an amino acid sequence having the sequence set forth in SEQ ID NO:1.

2. A CAB molecule comprising an amino acid sequence modified from the amino acid sequence set forth in SEQ ID NO:1, wherein the modification is at least one position selected from the group consisting of positions 100, 102, 104, 105, 107, 163, 165, 166, 184 and 226, wherein position numbering is with respect to SEQ ID NO:1 as shown in Figure 1.

3. The CAB molecule according to Claim 2, wherein the modifications are at positions 100, 184 and 226.

4. The CAB molecule according to Claim 2, wherein the modifications are at positions 100, 102, 104, 105, 107, 163, 165, 166, 184 and 226.

5. The CAB molecule according to Claim 2, wherein the modification is at least one selected from the group consisting of T100L, T102L, P104A, Y105I, F107N, S163A, S165Y, Y166A, S184D and S226D.

6. The CAB molecule according to Claim 5, wherein the CAB molecule comprises the following modifications: T100L, S184D and S226D.

7. A CAB molecule, the CAB molecule comprising an amino acid sequence having the sequence set forth in SEQ ID NO:2 as shown in Figure 2.

8. The CAB molecule according to Claim 7 further comprising at least one modification selected from the group consisting of 3, 13, 16, 37, 100, 102, 104, 105, 107, 146, 163, 165, 166, 181, 184, 226, 265 and 568, where position numbering is with respect to SEQ ID NO:2, as shown in Figure 2.

- 73 -

9. The CAB molecule according to Claim 8, further comprising at least one modification selected from the group consisting of K3Q, R13K, T16G, L37V, T100L, T102L, P104A, Y105I, F107N, M146V, S163A, S165Y, Y166A, W181V, S184D, S226D, K265A and S568A.

10. The CAB molecule according to Claim 9, further comprising SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9 or SEQ ID NO:10.

11. The CAB molecule according to Claim 9, further comprising the sequence set forth in SEQ ID NO:7.

12. The CAB molecule according to Claim 9, further comprising the sequence set forth in SEQ ID NO:8.

13. The CAB molecule according to Claim 9, further comprising the sequence set forth in SEQ ID NO:9.

14. The CAB molecule according to Claim 9, further comprising the sequence set forth in SEQ ID NO:10.

15. A nucleic acid encoding a CAB molecule comprising an amino acid sequence having the sequence set forth in SEQ ID NO:1.

16. A nucleic acid encoding a CAB molecule having an amino acid sequence modified from the amino acid sequence set forth in SEQ ID NO:1, wherein the modification is at least one position selected from the group consisting of positions 100, 102, 104, 105, 107, 163, 165, 166, 184 and 226, wherein position numbering is with respect to SEQ ID NO:1 as shown in Figure 1.

17. The nucleic acid according to Claim 16, wherein the modifications are at positions 100, 184 and 226.

- 74 -

18. The nucleic acid according to Claim 16, wherein the modifications are at positions 100, 102, 104, 105, 107, 163, 165, 166, 184 and 226.

19. The nucleic acid according to Claim 18, wherein the modification is at least one selected from the group consisting of T100L, T102L, P104A, Y105I, F107N, S163A, S165Y, Y166A, S184D and S226D.

20. The nucleic acid according to Claim 19, wherein the CAB molecule comprises the following modifications: T100L, S184D and S226D.

21. A nucleic acid encoding a CAB molecule, the CAB molecule comprising an amino acid sequence having the sequence set forth in SEQ ID NO:2.

22. The nucleic acid according to Claim 21, further comprising at least one modification selected from the group consisting of 3, 13, 16, 37, 100, 102, 104, 105, 107, 146, 163, 165, 166, 181, 184, 226, 265 and 568, where position numbering is with respect to SEQ ID NO:2, as shown in Figure 2.

23. The nucleic acid according to Claim 22, further comprising at least one modification selected from the group consisting of K3Q, R13K, T16G, L37V, T100L, T102L, P104A, Y105I, F107N, M146V, S163A, S165Y, Y166A, W181V, S184D, S226D, K265A and S568A.

24. The nucleic acid according to Claim 23, further comprising SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9 or SEQ ID NO:10.

25. The nucleic acid according to Claim 23, further comprising the sequence set forth in SEQ ID NO:7.

26. The nucleic acid according to Claim 23, further comprising the sequence set forth in SEQ ID NO:8.

- 75 -

27. The nucleic acid according to Claim 23, further comprising the sequence set forth in SEQ ID NO:9.

28. The nucleic acid according to Claim 23, comprising the sequence set forth in SEQ ID NO:10.